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IMAGES IN CARDIOLOGY

A New Diagnosis of Severe Aortic Coarctation Presenting in Adult Life

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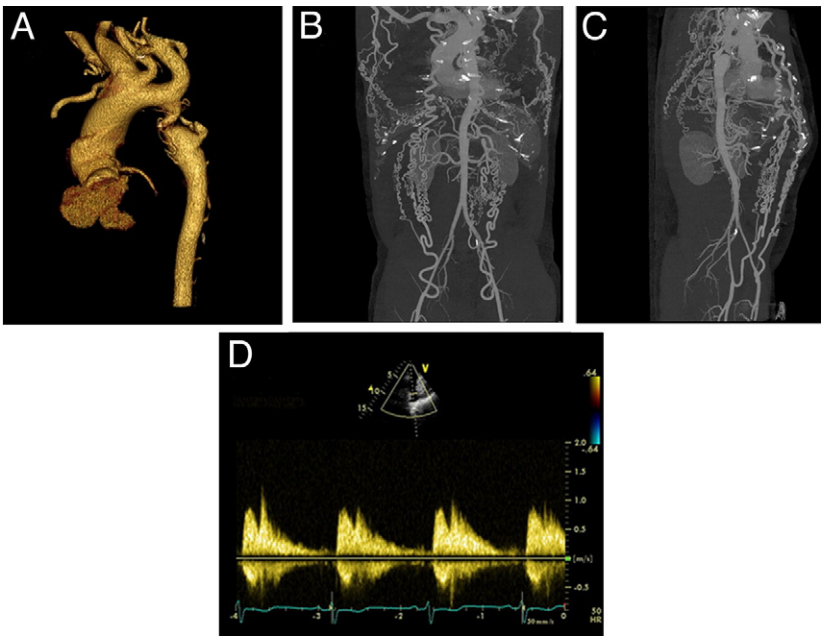

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A 52-year-old man with a history of hypertension presented to the emergency department with 2 days of retrosternal chest pain and dyspnea. Blood pressure was 223/106 mm Hg on both arms. Cardiac auscultation revealed decreased S2 with mid-systolic murmur along the right sternal border. Symmetric pulse deficits in the lower extremities were noted. Thoracoabdominal computed tomography angiography, for suspected dissection, showed severe aortic coarctation beyond the left subclavian artery **(A)**, with extensive collateralization along well-known pathways, including internal mammary to hypogastric arteries, internal mammary to intercostals, and paravertebral arteries **(B and C)**. An echocardiogram demonstrated moderate aortic stenosis and systolic flow reversal proximal to aortic coarctation (**D**, Online Video 1). Cardiac catheterization revealed nonobstructive coronary artery disease, and aortography is shown (Online Video 2). The patient underwent single-stage extra-anatomic repair from the left subclavian artery to descending aorta using a Dacron graft. His post-operative course was uncomplicated, and blood pressure normalized. Severe aortic coarctation presenting in adult life is extremely rare, with survival dependent upon substantial collateral circulation.